

IC ICM C07C317-44
 ICS C07C255-17; C07C255-65; C07C255-27; C07C255-05; C07C255-35;
 C08F220-44; C07C255-31; C08G065-48; C08G073-06; C08G077-44;
 C08G073-02; C07F017-02; C07F007-18; C07C311-02; C09K003-00;
 H01M006-16; H01M010-40; C07B041-00; C08F004-00
 CC 35-3 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 23, 40, 67
 IT Battery ~~electrolytes~~
 (malononitrile derivative salts as battery ~~electrolytes~~)
 IT Acid-base indicators
 (malononitrile derivative salts as pH indicators in ~~nonaq.~~
 solvents)
 IT Polyelectrolytes
 (malononitrile derivative salts as polymeric ~~electrolytes~~)
 IT 1120-71-4, 1,3-Propanesultone
 (reaction with lithiated phenazine and malononitrile K salt)
 IT 67-42-5 81-88-9, Rhodamine B 112-76-5, Stearoyl chloride
 401-99-0, 1,3-Dinitro-5-(trifluoromethyl)benzene 553-90-2,
 Dimethyl oxalate 700-16-3, Pentafluoropyridine 38870-89-2,
 Methoxyacetyl chloride 40724-67-2 53188-07-1, Trolox 56512-49-3
 86688-96-2, 1H-Pyrrole-3-acetic acid 210043-94-0
 (reaction with malononitrile K salt)
 OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS
 RECORD (9 CITINGS)
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L87 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:505252 HCAPLUS Full-text

DOCUMENT NUMBER: 127:193073

ORIGINAL REFERENCE NO.: 127:37405a,37408a

TITLE: Secondary ~~nonaqueous electrolyte~~
 batteries with oxalate ester containing
~~electrolyte~~ solvents

INVENTOR(S): Yamahira, Takayuki

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09199172	A	19970731	JP 1996-26160	19960118

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PRIORITY APPLN. INFO.: JP 1996-26160 19960118

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ED Entered STN: 09 Aug 1997

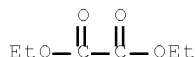
AB The batteries use Li containing oxide ~~cathodes~~, Li intercalating carbonaceous
~~anode~~s, and a Li salt ~~electrolyte~~ dissolved in a ~~nonaq.~~ solvent; where the
 solvent contains diesters of oxalic acid. The esters are selected from di-Me

oxalate, di-ET oxalate, di-Pr oxalate, di-iso-Pr oxalate, Et Me oxalate, Me Pr oxalate, and Et Pr oxalate. These batteries have high voltage and good cycling performance at heavy loads.

IT 95-92-1, Diethyl oxalate 553-90-2, Dimethyl oxalate 615-52-1 615-81-6, Di-iso-propyl oxalate 615-98-5, Dipropyl oxalate 26404-21-7, Methyl propyl oxalate 26404-25-1, Ethyl propyl oxalate (solvent mixts. containing diesters of oxalic acid for lithium hexafluorophosphate in secondary lithium batteries)

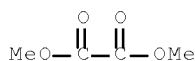
RN 95-92-1 HCAPLUS

CN Ethanedioic acid, 1,2-diethyl ester (CA INDEX NAME)



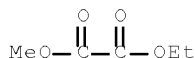
RN 553-90-2 HCAPLUS

CN Ethanedioic acid, 1,2-dimethyl ester (CA INDEX NAME)



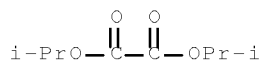
RN 615-52-1 HCAPLUS

CN Ethanedioic acid, 1-ethyl 2-methyl ester (CA INDEX NAME)



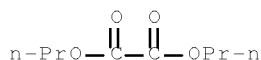
RN 615-81-6 HCAPLUS

CN Ethanedioic acid, 1,2-bis(1-methylethyl) ester (CA INDEX NAME)

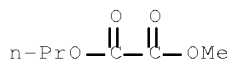


RN 615-98-5 HCAPLUS

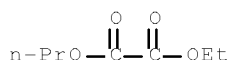
CN Ethanedioic acid, 1,2-dipropyl ester (CA INDEX NAME)



RN 26404-21-7 HCAPLUS
 CN Ethanedioic acid, 1-methyl 2-propyl ester (CA INDEX NAME)



RN 26404-25-1 HCAPLUS
 CN Ethanedioic acid, 1-ethyl 2-propyl ester (CA INDEX NAME)



IC ICM H01M010-40
 ICS H01M004-58
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 ST lithium battery ~~electrolyte~~ oxalic acid diester
 IT Battery ~~electrolytes~~
 (solvent mixts. containing diesters of oxalic acid for lithium
 hexafluorophosphate in secondary lithium batteries)
 IT ~~95-92-1~~, Diethyl oxalate 96-49-1, Ethylene carbonate
 108-32-7, Propylene carbonate 553-90-2, Dimethyl oxalate
 615-52-1 615-81-6, Di-iso-propyl oxalate
 615-98-5, Dipropyl oxalate 21324-40-3, Lithium
 hexafluorophosphate 26404-21-7, Methyl propyl oxalate
 26404-25-1, Ethyl propyl oxalate
 (solvent mixts. containing diesters of oxalic acid for lithium
 hexafluorophosphate in secondary lithium batteries)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS
 RECORD (1 CITINGS)

L87 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1997:101100 HCAPLUS Full-text
 DOCUMENT NUMBER: 126:106586
 ORIGINAL REFERENCE NO.: 126:20539a,20542a
 TITLE: ~~Nonaqueous electrolyte~~
 batteries having reactive additives in
 ~~electrolytes~~
 INVENTOR(S): Jinno, Maruo; Uehara, Mayumi; Sakurai, Atsushi;
 Nishio, Koji; Saito, Toshihiko
 PATENT ASSIGNEE(S): Sanyo Denki Kk, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08321311	A	19961203	JP 1995-150843	19950524
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PRIORITY APPLN. INFO.:			JP 1995-150843	19950524